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THE GENERA AND SUBGENERA OF LEIODIDÆ  
AND CLAMBIDÆ<sup>1</sup>

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The preparation by the author of the portion on Leiodidæ and Clambidæ of the Junk-Schenkling *Coleopterorum Catalogus* made it desirable to establish a sequence for the genera of those families. The following key, compiled from the literature, is presented as exhibiting the basis of that sequence. A similar key to the species of *Colenis* Er. is appended at the end of the key to genera.

LEIODIDÆ

A<sup>1</sup>. With eyes; tarsi three to five segmented; abdomen six (♂) or five segmented (♀).

B<sup>1</sup> Head without antennal groove beneath; tibiæ without longitudinal dorsal carina; anterior tarsi without spines; body usually not contractile ..... **LEIODINI**

C<sup>1</sup>. Metatarsi five segmented.

D<sup>1</sup>. Antennal club five segmented.

E<sup>1</sup>. Head short; clypeus small, feebly emarginate; pronotum transverse; tarsi 5-5-5; Holarctic, Oriental, Chili.

*Hydnobius* Schm.

E<sup>2</sup>. Head very prominent; clypeus distinct, deeply emarginate with four strong setæ; pronotum oval or oboval; Australia, Panama ..... **Dietta** Sharp.

D<sup>2</sup>. Antennal club three segmented.

E<sup>1</sup>. Tibiæ slender, not strongly spinulate; Holarctic.

*Triarthron* Märkel.

E<sup>2</sup>. Tibiæ dilated, strongly spinulate; Madeira ..... *Stereus* Woll.

<sup>1</sup> Contribution from the Zoölogical Laboratory of the University of Washington.

C<sup>2</sup>. Metatarsi with less than five segments.

D<sup>1</sup>. Tarsi 5-5-4.

E<sup>1</sup>. Antennal club five segmented.

F<sup>1</sup>. Pronotum not or feebly margined at base; protibia with moderately elongate spurs at apex, the outer edge with or without a tooth at extreme apex, not emarginate (*Anisotoma* Schm., Gr., Lacord., Lee., Seidl., Horn, Leng, etc.—*Liodes* Reitt., Ganglb., etc.) .... *Leiodes* Latr.

G<sup>1</sup>. Mesosternum not carinate; Nev., Cal. (type *L. ecarinata* Horn) ..... subg. *Ecarinosphaerula* nov.

G<sup>2</sup>. Mesosternum feebly carinate, the carina terminating at the anterior margin of the mesosternum.

H<sup>1</sup>. Interstitial rows of punctures feeble; Holaretic, Cent. Amer. ..... subg. *Leiodes* s. str.

H<sup>2</sup>. Interstitial rows of punctures as distinct as the strial rows; Europe ..... subg. *Pseudohydnobius* Ganglb.

G<sup>3</sup>. Mesosternum strongly carinate; metasternum short.

I<sup>1</sup>. Hind margin of pronotum feebly arcuate, its hind angles broadly rounded; wingless; Holaretic.

subg. *Oreosphaerula* Ganglb.

H<sup>2</sup>. Hind margin of pronotum more nearly straight.

I<sup>1</sup>. Outer apical angle of ♂ metatibia with a heel-like tooth; Europe ..... subg. *Trichosphaerula* Fleisch.

I<sup>2</sup>. Outer apical angle of ♂ metatibia with a small tooth; all elytral striae the same; Palearctic.

subg. *Oospaerula* Ganglb.

F<sup>2</sup>. Pronotum completely margined at base; protibia with long spurs at apex, the outer edge strongly emarginate towards apex forming a lobe-like tooth at a distance of from one third to one half the distance from the apical end; Palaeartic ..... *Chobautiella* Reitt.

E<sup>2</sup>. Antennal club four segmented; Nearctic, Cape of Good Hope.

*Anogdus* Lee.

E<sup>3</sup>. Antennal club three segmented.

F<sup>1</sup>. Elytra not transversely strigose; mesosternum not carinate; Cent. Europe ..... *Xanthosphaera* Fairm.\*

F<sup>2</sup>. Elytra transversely strigose; mesosternum narrowly carinate; Cent. Africa ..... *Hypoliodes* Port.

D<sup>2</sup>. Tarsi 5-4-4; elytra striate.

E<sup>1</sup>. Elytra not transversely strigose; antennal club five segmented with eighth segment narrower than seventh.

F<sup>1</sup>. Elytral striae not impressed, except sutural, but represented by rows of punctures; New York ..... *Cainosternum* Notman

F<sup>2</sup>. Elytral striae obsolete except sutural; Sikkim, Java:

*Liocolenis* Port.\*\*

E<sup>2</sup>. Elytra transversely striose.

F<sup>1</sup>. Eighth segment of antenna not smaller than seventh; antennal club six segmented.

G<sup>1</sup>. Elytra with punctate striæ; intervals punctate; Japan.

**Pseudocolenis** Port.

G<sup>2</sup>. Elytra without striæ other than sutural; Himalayas.

**Liodinella** Port.

F<sup>2</sup>. Eighth segment of antenna smaller than seventh; antennal club five segmented; Holarctic, Oriental, New Caledonia, Cent. Amer. (*Colenisia* Fauv.-*Pseudoliodes* Port.-*Pseudocolenis* Champ. nee. Reitt.) ..... **Colenis** Er.

D<sup>2</sup>. Tarsi 4-4-5.

E<sup>1</sup>. Antennal club six segmented; Sikkim ..... **Delios** Port.

E<sup>2</sup>. Antennal club three segmented; Siberia ..... **Deltocnemis** Sahlbg.

D<sup>4</sup>. Tarsi 4-3-3; antennal club 5-segmented; Europe.

*Agaricophagus* Schm.

B<sup>2</sup>. Head with antennal groove beneath; except in *Cyrtusa* Er. the tibiæ with two longitudinal dorsal carinæ and the anterior tibiæ spinose; body more or less contractile ..... **AGATHIDIINI**

C<sup>1</sup>. Head small; tempora short.

D<sup>1</sup>. Antennal club five segmented.

E<sup>1</sup>. Second segment of club not smaller than first; elytra without striæ; meso- and metatibiæ not spinose without; Japan.

**Sphaeroliodes** Port.

E<sup>2</sup>. Second segment of club smaller than first; meso- and metatibiæ spinose without.

F<sup>1</sup>. Tarsi 5-5-4 or 5-4-4.

G<sup>1</sup>. Elytra densely punctate; striæ present or absent; four proximal ♂ pro- and mesotarsomeres strongly dilated; tarsi 5-5-4 (♂), 5-4-4 (♀).

H<sup>1</sup>. Labrum truncate; clypeus with frontal suture; Holarctic, Tasmania, Argentina (*Leiodes* Schm., Er.-*Liodes* Lacord., Lee., Seidl., Horn, Leng, etc.).

**Anisotoma** Ill.

H<sup>2</sup>. Labrum arcuate; clypeus without frontal suture; Indiana ..... **Stetholiodes** Fall.

G<sup>2</sup>. Elytra not or feebly punctate; striæ present or absent; ♂ protarsomeres feebly dilated; ♂ mesotarsomeres not dilated; tarsi 5-5-4; Japan ..... **Eucyrta** Port.

F<sup>2</sup>. Tarsi 4-4-3-; procoxae cavæ open behind; Cent. Amer.

**Creagrophorus** Matth.

\* The mesotarsi are unknown and may require the association of this genus with *Cainosternum* Notman and *Liocolenis* Port.

\*\* Includes *Pseudocolenis laevipennis* Port., Java.

- D<sup>2</sup>. Antennal club four segmented.
- E<sup>1</sup>. Antennae eleven segmented; without striæ.
- F<sup>1</sup>. Eyes not forming a sharp angle with tempora; Europe.
- Liodopria Reitt.
- F<sup>2</sup>. Eyes forming a sharp angle with tempora; Europe.
- Amphicyllis Er.
- E<sup>2</sup>. Antennæ ten segmented; Cosmopolitan.....*Cyrtusa* Er.
- D<sup>3</sup>. Antennal club three segmented.
- E<sup>1</sup>. Antennæ eleven segmented; eyes forming a sharp angle with tempora; Palaearctic.....*Cyrtoplastus* Reitt.
- E<sup>2</sup>. Antennæ ten segmented.
- F<sup>1</sup>. Mesocoxæ narrowly separated; Mich., D. C.
- Isoplastus Horn
- F<sup>2</sup>. Mesocoxæ widely separated; Zanzibar.....*Isoplastinus* Port.
- C<sup>2</sup>. Head larger; tempora longer.
- D<sup>1</sup>. Eighth antennal segment scarcely narrower than seventh; tarsi 5-5-4 ( $\delta$ ), 5-4-4 or 4-4-4 ( $\varphi$ ); antennal club three segmented .....
- Agathidium* Ill.
- E<sup>1</sup>. Pronotum and elytra not evidently pubescent.
- F<sup>1</sup>. Humeri obsolete; body completely contractile; Oriental, Holartic, Cent. Amer. (*Cyphocele* Thoms. 1862).
- subg. *Agathidium* s. str.
- F<sup>2</sup>. Humeri evident, blunt; body incompletely contractile.
- G<sup>1</sup>. Head behind eyes indistinctly narrowed; Palaearctic.
- subg. *Neoceble* Gozis.
- G<sup>2</sup>. Head behind eyes with evident tempora, thence narrowed; Palaearctic. (*Agathidium* s. str. Thoms. 1862.—*Saccocele* Gozis.).....  
subg. *Cyphocele* Thoms.
- E<sup>2</sup>. Dorsum evidently pubescent; Maritime Alps.
- subg. *Chatoceble* Deville
- D<sup>2</sup>. Eighth antennal segment narrower than seventh; antennal club five segmented.
- E<sup>1</sup>. Tarsi 5-5-5 ( $\delta$ ); India.....*Agathodes* Port.
- E<sup>2</sup>. Tarsi 5-4-4 ( $\delta$ ), 4-4-4 ( $\varphi$ ); Caucasus.....*Ansibaris* Reitt.
- E<sup>3</sup>. Tarsi 4-3-3 ( $\delta$ ), 3-3-3 ( $\varphi$ ); N. Amer. (*Agyptus* Lee.—*Aglyptonotus* Champ.).....*Aglyptinus* Cock.
- A<sup>2</sup>. Without eyes; tarsi three segmented; antennæ with five segmented club of which the second segment is smaller than the first; abdomen five segmented; Neotropical .....
- SCOTOCRYPTINI**
- B<sup>1</sup>. Body oval or oval oblong.
- C<sup>1</sup>. Elytra with pubescence in part erect; Peru.....*Synaristus* Port.
- C<sup>2</sup>. Elytra glabrous, irregularly strigose; Guatemala.....*Parabystus* Port.
- B<sup>2</sup>. Body subtriangular; elytra without sculpture, only with pruinose pubescence.

- C<sup>1</sup>. Scutellum visible; tibia cylindrical; ♂ tarsi unmodified; Mexico to Brazil ..... *Scotocryptus* Girard.  
 C<sup>2</sup>. Scutellum very much reduced; tibia compressed; ♂ pro- and mesotarsomeres dilated; Bolivia ..... *Scotocryptodes* Port.

## CLAMBIDÆ

- A<sup>1</sup>. Elytra margined at sides with distinct epipleuræ; coxal plates narrow; antennæ eleven segmented, club three segmented, moderately distant from eyes at base; abdomen seven segmented; Alaska.  
     *Empelus* Lec.\*
- A<sup>2</sup>. Elytra not margined at sides, without epipleuræ; coxal plates wide.
- B<sup>1</sup>. Head smaller and narrower than pronotum; pronotum with evident sides and posterior angles; antennæ close to eyes.
- C<sup>1</sup>. Antennæ ten segmented with two segmented club; head slightly narrower than pronotum; scutellum evident; Australasia, Oriental, Holarctic, Cent. Amer. ..... *Clambus* Fisch.
- C<sup>2</sup>. Antennæ eight segmented with feebly indicated three segmented club; head much narrower than pronotum; scutellum very small; Europe, Syria ..... *Loricaster* Muls.\*\*
- B<sup>2</sup>. Head larger than pronotum and as broad; pronotum without sides and posterior angles; antennæ ten segmented with two segmented club; antennæ distant from eyes at base; dorsum densely pubescent; abdomen six segmented; S. Africa, Holarctic.  
     *Calyptomerus* Redtb.

KEY TO THE SPECIES OF *Colenis* Er.

The species of the genus *Colenis* Er. as delimited in the above key to genera may be defined as follows:

- A<sup>1</sup>. Elytral striæ distinct.
- B<sup>1</sup>. Head transversely strigose, at least at sides.
- C<sup>1</sup>. Pronotum transversely strigose.
- D<sup>1</sup>. Sutural stria entire.
- E<sup>1</sup>. Seventh antennal segment scarcely wider than eighth; length 1.7–2.2 mm.; Spain, France, Italy ..... *bonnairei* Duv.

\* *Acribus* Waterhouse, Galapagoes Is., is said to resemble *Clambus*. Antenna eleven segmented, club three segmented. The genus should be re-characterized by one having access to the type, which is probably in the British Museum.

\*\* *Clambidus* Fauv., New Caledonia, is said to resemble *Loricaster*. Body oval, strongly convex; head scarcely retracted in thorax, almost vertical, narrow; mandibles and eyes prominent; pronotum somewhat expanded laterad; scutellum large, pentagonal; elytra squarely truncate at base; sutural stria distinct from middle to apex.

- E<sup>2</sup>. Seventh antennal segment twice as wide as eighth; length 1.3-2 mm.; Europe, Caucasus ..... *immunda* Sturm.
- D<sup>2</sup>. Sutural stria obsolete in front of middle; length 1.25 mm.; Panama ..... *punctulata* Matth.
- C<sup>2</sup>. Pronotum not transversely strigose; sutural stria nearly attaining scutellum; length 1.25 mm.; Guatemala ..... *crassicornis* Matth.
- B<sup>2</sup>. Head and pronotum not transversely strigose.
  - C<sup>1</sup>. Elytral striæ regular, strongly punctate; intervals strongly punctate; length 2 mm.; Japan ..... *grandis* Port.
  - C<sup>2</sup>. Elytral striæ sinuous, minutely punctate; sutural stria confined to apical declivity; length 1-1.1 mm.; Guatemala.
    - phalacroides* Champ.
- A<sup>2</sup>. Elytral striæ indistinct, except the sutural.
  - B<sup>1</sup>. Sutural stria entire; head and pronotum not transversely strigose.
    - C<sup>1</sup>. Antennal club black.
      - D<sup>1</sup>. Sutural stria deep at base.
        - E<sup>1</sup>. Narrower, legs and antennæ shorter; the seventh antennal segment normal; length 2 mm.; W. Almora (India).
          - rastrata* Champ.
        - E<sup>2</sup>. Broader, legs and antennæ longer; the seventh antennal segment dilated into a broad oblong plate; length 2.5 mm.; Naini Tal (India) ..... *disparilis* Champ.
      - D<sup>2</sup>. Sutural stria faint at base; length 2.25 mm.; Kashmir.
        - indica* Port.
    - C<sup>2</sup>. Antennal club dusky; length 2 mm.; Japan ..... *strigosula* Port.
  - B<sup>2</sup>. Sutural stria obsolete in front of middle; pronotum not transversely strigose.
    - C<sup>1</sup>. Head transversely strigose; length 1.5-2 mm.; Atlantic to Ill., Tenn., and Fla. ..... *impunctata* Lee.\*
    - C<sup>2</sup>. Head not transversely strigose.
      - D<sup>1</sup>. Testaceous, antennal segments six to ten infuscate; length 2.25 mm.; Nilgiri Hills (India) ..... *hemisphaerica* Champ.
      - D<sup>2</sup>. Rufo-testaceous, antennal club infuscate; length 1.5-1.8 mm.; W. Almora and Naini Tal (India) ..... *estriata* Champ.
      - D<sup>3</sup>. Piceous, with front, base of pronotum, segments one to four and eleven of antenna, legs, and usually a patch just behind the base of the elytra testaceous; length 2-2.25; Nilgiri Hills (India), Ceylon ..... *variicornis* Champ.

\* Apparently close to *impunctata* Lee. is *caledonica* Fauv. from New Caledonia. Length 1.5 mm.; without sculpture except for numerous fine closely placed transverse striolæ on the elytra, a sutural stria which is impressed on the declivity, and scarcely visible transverse striolæ on the front.